106. Transgenic plants according to claim 93 wherein the plants require a low suply of fertilizer for their growth.

92

107. Transgenic plants according to claim 93 that develop a higher productivity in acid soils.

Please ~~cancel~~ claims 92 and 132.

REMARKS

The Examiner has raised the following objections to the claims in view of the listed prior art:

Claims 1, 2, 5, 6, 8, 11-13, 16, 17, 19, 22, 23, 26, 27, 29, 62, 63, 66, 67, 69, 74, 75, 78, 79, 80, 82, 84, 88, 90-94, 97, 99, 101, 103, 104, 107-109, 114-117, 122, 123, 126, 127, 128, 130, 136, and 138 are rejected under 35 USC 102(a) as being anticipated by de la Fuente et al. (Science, Vol. 276, 6 June 1997, pages 1566-1568.

Claims 3, 14, 24, 64, 76, 95 and 124 are rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of John (U.S. Patent No. 6,096,950).

Claims 4, 15, 25, 65, 77, 96 and 125 are rejected under 35 USC 103(a) as being unpatentable over de la funete et al in view of Silverman (U.S. Patent No. 5,866,787).

Claims 7, 18, 28, 68, 81, 100, 118-121, 129 and 132 are rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of Lehninger et al (Biochemistry, Second Edition, 1976) pages 446-447.

Claims 9, 10, 20, 21, 30, 31, 70, 71, 83, 102 and 131 are rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al and further in view of Chou (U.S. Patent No. 6,121,511).

Claims 32, 33, 36, 37, 39, 85 and 133 are rejected under 35 USC 103(a) as being unpatentable over de la fuente et al in view of Croy.

Claims 42, 43, 46, 47, 49, 86 and 134 are rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of Mucchal (Proc. Natl. Acad. Sci. Vol. 93, pages 10519-10523, 1996).

Claims 52, 53, 56, 57, 59, 105, 135, and 87 are rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of Guerinot et al (U.S. Patent No. 5,846,821).

Claims 110-113 are rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of Foulkes et al (U.S. Patent No. 6,136,779).

Claim 54 is rejected under 35 USC 103(a) as being unpatentable over de la Fuente in view of John, as disclosed above, and further in view of Guerinot.

Claim 55 is rejected under 35 USC 103(a) as being unpatentable over de la Fuente in view of Silverman, as disclosed above, and further in view of Guerinot.

Claim 58 is rejected under 35 USC 103(a) as being unpatentable over de la Fuente in view of Lehninger, as disclosed above, and further in view of Guerinot et al.

Claims 60 and 61 are rejected under 35 USC 103(a) as being unpatentable over de la Fuente in view of Chou, as disclosed above, and further in view of Guerinot et al.

Claim 34 is rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of John, and further in view of Croy.

Claim 35 is rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of Silverman, and further in view of Croy.

Claim 38 is rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of Lehringer, and further in view of Croy.

Claims 40 and 41are rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of Chou, and further in view of Croy.

Claim 44 is rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of John, and further in view of Muchhal.

Claim 45 is rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al. in view of Sliverman, and further in view of Mucchal.

Claim 38 is rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of Lehringer and further in view of Mucchal.

Claims 50 and 51 are rejected under 35 USC 103(a) as being unpatentable over de la Fuente et al in view of Chou, and further in view of Mucchal.

Claims 72, 73, 89 and 137 are rejected under 35 USC. 103(a) as being unpatentable over de la Fuente et al in view of Chou and further in view of Lundquist et al (U.S. Patent No. 5,990,390).

Applicant has carefully reviewed each of the aforementioned objections in detail in view of the prior art of record. Additionally, claim amendments (including claim cancellations) have been made in view of other objections of record.

In reply to the 35 USC 102 and 103 objections, the Applicant respectfully requests that they all must be withdrawn as the instant application is based on the reference and the named inventor is one of the authors of the reference.

The reference was published on June 6, 1997 and the priority date of the application is based on the PCT application which was filed on May 29, 1998, less than one year from the filing date bearing the international application number PCT/MX98/00020. Accordingly, the de la Fuerte reference is deemed not to be citable prior art under 35 USC 102.

The entirety of the objections under 35 USC 103 cite the de la Fuerte reference as the base reference with additional references cited giving rise to the various obviousness objections. As this reference is not citable for the purposes of 35 USC 103 (or 102), it is respectfully submitted that these objections must also be withdrawn.

Applicant's undersigned representative has notarized statements from all of the co-authors of the article (referred to hereinabove) by de la Fuerte stating that it was Mr. Estrella's idea to produce transgenic tobacco and papaya plants that overexpress a citrate synthase (CS) gene form *Pseudomonas aeroginosa* in their cytoplasm. Should these be necessary to be submitted, it is requested the Examiner contact the Applicant's representative by telephone at (312) 201-2327.

The Applicant submits that the objections of record have all been overcome, the objections are requested to be withdrawn and an early Notice of Allowance is respectfully requested.

Respectfully submitted,

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MARKED UP VERSION OF AMENDED CLAIMS

1. A method for obtaining transgenic plants having an increased capacity to synthesize, to accumulate and to exude organic acids, by integration into their genome of a recombinant heterologous DNA molecule encoding enzymes that synthesize organic acids, involving the following steps:

(a) preparation of a recombinant heterologous DNA molecule encoding one or more genes for enzymes that synthesize organic acids, linked to a promoter sequence functional in plants, and to a [transcrition] transcription termination/polyadenylation sequence functional in plants;

(b) the transformation of plant cells with the recombinant DNA molecule, and

(c) the regeneration of transgenic plants starting from transformed cells, or of seeds from plants obtained from these transformed cells, for one or several generations, wherein the genetic information of these transformed cells, includes the recombinant DNA molecule coding for enzymes that synthesize organic acids.

92. Cancel

93. Transgenic plants with an increased [capacity] activity from approximately 30 to 200 percent to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 74.

94. Transgenic plants with an increased activity [capacity] activity from approximately 30 to 200 percent to synthesize, to accumulate and to exude organic acids by integration into their genome of [a] recombinant heterologous DNA molecule as defined in claim 75.

95. Transgenic plants with an increased [capacity] activity from approximately 30 to 200 percent to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 76.

96. Transgenic plants with an increased [capacity] activity from approximately 30 to 200 percent to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 77.

97. Transgenic plants with an increased [capacity] activity from approximately 30 to 200 percent to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 78.

98. Transgenic plants with an increased [capacity] activity from approximately 30 to 200 percent to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 79.

99. Transgenic plants with an increased [capacity] activity from approximately 30 to 200 percent to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 80.

100. Transgenic plants with an increased [capacity] activity from approximately 30 to 200 percent to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 81.

101. Transgenic plants with an increased [capacity] activity from approximately 30 to 200 percent to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 82.

102. Transgenic plants with an increased [capacity] activity from approximately 30 to 200 percent to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 83.

103. Transgenic plants [with increased capacity to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 84] according to claim 93 wherein the plants are tolerant to toxic concentrations of aluminum.

104. Transgenic plants [with increased capacity to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA

molecule as defined in claim 85] according to claim 93 wherein the activity in the plants is increased to solubilizer or accumulate phosphate.

105. Transgenic plants [with increased capacity to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 86] according to claim 93 wherein the activity in the plants is increased to solubilize or accumulate iron.

106. Transgenic plants [with increased capacity to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 87] according to claim 93 wherein the plants require a low supply of fertilizer for their growth.

107. Transgenic plants [with increased capacity to synthesize, to accumulate and to exude organic acids by integration into their genome of a recombinant heterologous DNA molecule as defined in claim 88] according to claim 93 that develop a higher productivity in acid solids.

132. Cancel